

Appln. No. 09/905,716

Amendment Date: October 28, 2005

Reply to Office Action of June 28, 2005

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**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Currently Amended) A receiver for receiving and efficiently separating a composite 3-G wireless communications signal into [its] constituent base-band components, wherein said receiver combines multiple processing tasks of a [conventional] 3-G receiver into a single [entity] device, said single [entity] performs the processing required for multiple channels [in a single device], comprising,

a resampling polyphase filter bank [wherein] for performing tasks of spectral translation, bandwidth reduction and of interpolation to change sample rate by a rational ratio [are embedded], and

a single polyphase filter coupled to operate[s] in a resampling mode so that the sample rate input and the sample rate output [sample rates] are different.